

ARF1 Protein, Human (His-GST, Myc)

Cat. No.:	HY-P72089
Synonyms:	ADP Ribosylation Factor 1; ADP-ribosylation factor 1; ARF 1; ARF1; ARF1_HUMAN
Species:	Human
Source:	E. coli
Accession:	P84077 (G2-K181)
Gene ID:	375
Molecular Weight:	Approximately 55 kDa

PROPERTIES

AA Sequence	<p> G N I F A N L F K G L F G K K E M R I L M V G L D A A G K T T I L Y K L K L G E I V T T I P T I G F N V E T V E Y K N I S F T V W D V G G Q D K I R P L W R H Y F Q N T Q G L I F V V D S N D R E R V N E A R E E L M R M L A E D E L R D A V L L V F A N K Q D L P N A M N A A E I T D K L G L H S L R H R N W Y I Q A T C A T S G D G L Y E G L D W L S N Q L R N Q K </p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>ARF1, a small GTPase, intricately participates in protein trafficking among distinct cellular compartments, notably within the Golgi complex. In its GTP-bound state, ARF1 plays a pivotal role in modulating vesicle budding and uncoating processes within the Golgi, orchestrating the recruitment of coatomer proteins to the Golgi membrane. The subsequent hydrolysis of ARF1-bound GTP, facilitated by ARFGAPs proteins, becomes essential for the dissociation of coat proteins from Golgi membranes and vesicles. Additionally, the GTP-bound form of ARF1 interacts with PICK1, regulating AMPA receptor (AMPA) trafficking and influencing synaptic plasticity of excitatory synapses, as well as spine shrinkage during long-term depression (LTD). In the context of microbial infection, ARF1 takes on an unexpected role as an allosteric activator of the cholera toxin catalytic subunit, functioning in ADP-ribosyltransferase activity.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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